

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for signal processing, wherein a sensor signal of an image sensor is provided as an input and wherein the input is reconstructed in a filter to establish an output for further processing, wherein the filter comprises at least one reconstruction-filter selected from the group consisting of: a luminance-reconstruction-filter, a red-green-blue-color-

reconstruction-filter and a contour-reconstruction-filter, and wherein

[[ - ]]—the input comprises a plurality of pixels, and a pixel provides a color value assigned to at least one of the colors red, green or blue,

characterized ~~by~~ in that said method comprises the steps of:

[[ - ]] applying the luminance-reconstruction-filter to an array of pixels of predetermined array size comprising a number of pixels, wherein at least one of the number of pixels is formed by a red-pixel assigned to the color of red, at least one of the number of pixels is formed by a blue-pixel assigned to the color of blue, and at least one of the number of pixels is formed by a green-pixel assigned to the color of green, and

[[ - ]] applying, subsequent to the luminance-reconstruction-filter, the color-reconstruction filter which comprises a false-color-filter to eliminate false colors from the input.

2. (Currently Amended) The method as claimed in claim 1, characterized ~~by~~ in that said method further comprises the step of:  
\_\_\_\_\_weightening the red- and/or the blue-pixel by a green-parameter.

3. (Currently Amended) The method as claimed in claim 1, characterized ~~by~~ in that said method further comprises the steps of:  
\_\_\_\_\_summarizing the pixels of the array into one output-pixel;  
\_\_\_\_\_and  
\_\_\_\_\_centering the output-pixel in the array, in particular by positioning a center-output-pixel of a second filter subsequent to a first filter in phase with the output-pixel, in particular by centering the center-output-pixel it is centered at the same center position of the array as the output-pixel.

4. (Original) The method as claimed in claim 1, characterized by applying the false-color-filter to an array of green-pixels of predetermined size, in particular to a predetermined small array of green-pixels having a size of four pixels, comprising at least two green-pixels, one red-pixel and one blue-pixel.

5. (Previously Presented) The method as claimed in claim 1, characterized in that the false-color-filter comprises the following steps:

- weightening the red- and or blue-pixels in a predetermined small array of green-pixels respectively by one ore more further green-parameters,
- applying an average filter to one ore more green-pixels in the array,
- summarizing the weighted red- and blue pixels and an average of one or more of the green-pixels in the array by a median filter,
- comparing the median-filtered pixels with low-frequency-filtered pixels of the predetermined small array of green-pixels, to thereby eliminate false colors from the input.

6. (Previously Presented) The method as claimed in claim 4, characterized in that the predetermined small array of green-pixels has an array-size of 3 x 3.

7. (Previously Presented) The method as claimed in claim 1, characterized in that the applied color-reconstruction-filter has an array-size of 3 x 3 or 5 x 5, in particular an array-size of 5 x 5 in case of a heavy sensor matrix.

8. (Previously Presented) The method as claimed in claim 1, characterized by applying a post-filter subsequent to a false-color-filter to maintain a phase to a previous applied luminance-reconstruction-filter.

9. (Original) The method as claimed in claim 8, characterized by applying subsequent to a false-color-filter a post-filter of 2 x 2 array-size, to position a center-output-pixel of a predetermined array of green-pixels in phase with a white-pixel which is centered as an output-pixel with respect to the same array as that to which a luminance-reconstruction-filter has been applied to.

10. (Previously Presented) The method as claimed in claim 1, characterized by either column-wise or row-wise processing with regard to the matrix.

11. (Currently Amended) An apparatus for signal processing, which is in particular adapted to execute the method as claimed in claim 1, said apparatus comprising an image sensor for providing a sensor signal as an input, and a filter for reconstructing the input to establish an output for further processing, wherein the filter comprises at least one reconstruction-filter selected from the group consisting of: a luminance-reconstruction-filter, a red-green-blue-color-reconstruction-filter and a contour-reconstruction-filter, wherein

[[ - ]] the input comprises a plurality of pixels and a pixel provides a color value assigned to at least one of the colors red, green or blue,

characterized in that

[[ - ]] the luminance-reconstruction-filter is adapted to be applied to an array of pixels of predetermined array size

comprising a number of pixels, wherein at least one of the number of pixels is formed by a red-pixel assigned to the color of red, at least one of the number of pixels is formed by a blue-pixel assigned to the color of blue, and at least one of the number of pixels is formed by a green-pixel assigned to the color of green, and wherein

[[ - ]] the color-reconstruction-filter is applied subsequent to the luminance-reconstruction-filter and the color-reconstruction-filter which comprises a false-color-filter to eliminate false colors from the input.

12. (Currently Amended) The apparatus as claimed in claim 11, characterized by wherein said apparatus further comprises:

[[ - ]] means for weightening the red- and/or the blue-pixel by the array with a green-parameter, and/or

[[ - ]] means for summarizing the pixels of the array into one output pixel, and/or

[[ - ]] means for centering the output pixel in the array.

13. (Currently Amended) A computer-readable medium having stored thereon a computer program product ~~storable on medium readable by a computing system, in particular a computing system of a camera,~~ comprising a software code section which induces for causing a the computing system to execute the method as claimed in claim 1 when the computer program product is executed on the

~~computing system, in particular when executed on the computing system of a camera.~~

14. (Original) A computing system and/or semiconductor device, in particular a computing system of a camera, for executing and/or storing a computer program product as claimed in claim 13 thereon.

15. (Previously Presented) A camera comprising an optical system, an image sensor and an apparatus as claimed in claim 11.